STATE BOARD OF EQUALIZATION
STAFF LEGISLATIVE BILL ANALYSIS

Date Introduced:	**05/30/01**	Bill No:	**AB 62XX**
Tax:	**Sales and Use**	Author:	**Cox, et al.**
Board Position:		Related Bills:	**AB 695 (Pescetti)** **AB 1319 (Cox)**

BILL SUMMARY

This bill would provide a 5% state sales and use tax exemption for sales and purchases of any solar energy system designed as specified.

ANALYSIS

Current Law

Under existing law, the sales or use tax applies to the sale or use of tangible personal property in this state, unless otherwise exempted or excluded by statute. Under current law, the sales and use tax applies to sales and purchases of equipment used to generate electricity to the same extent as it applies to any other sale of tangible personal property that is not otherwise exempted or excluded from tax by statute.

Revenue and Taxation Code Section 6353, however, provides a sales and use tax exemption for sales and purchases of gas and electricity when delivered to consumers through mains and lines.

Proposed Law

This bill would add Section 6353.5 to the Sales and Use Tax Law to provide a 5 percent state sales and use tax exemption for sales and purchases of any solar energy system designed to provide thermal energy for the purpose of heating water or providing electrical power, which purposes would otherwise require the use of a conventional source of energy, such as petroleum products, natural gas, manufactured gas, or electricity. The bill would specify the following:

- In order for a solar thermal system for water heating to qualify for the proposed exemption, it must be rated and certified by the Solar Rating and Certification Corporation, or similar entity.

- In order for a photovoltaic system to qualify, it must meet all applicable safety and performance standards established by the National Electrical Code, the Institute of Electrical and Electronics Engineers, and accredited testing laboratories.

- Spare and replacement parts of solar energy systems would not qualify for the proposed exemption, nor would conventional heating, pumping, wiring or control equipment that could function independently in the intended application in the absence of a solar system.

In General

The California Energy Commission, with the passage of Senate Bill 90 (Sher, Ch. 905, Stats. 1997), has the authority to administer funds collected from the state's investor-owned utilities to support renewable energy technologies. Assembly Bill 1890 (Brulte, et al., Ch. 854, Stats. 1996), which also deregulated the electricity industry, established a new statewide renewables policy by providing $540 million collected from Southern California Edison, Pacific Gas and Electric Company, and San Diego Gas & Electric over four years beginning in 1998 to support existing, new and emerging renewable technologies from 1998 to 2001.

AB 1890 also required the Energy Commission to submit a report to the Legislature outlining allocation and distribution recommendations for those renewables funds. This report, as adopted by the Legislature, became SB 90 - the administrative guidelines for the Renewable Energy Program.

Senate Bill 90 implemented the report's recommendations and creates a Renewable Resource Trust Fund containing four accounts: the Existing Renewable Resources Account, the New Renewable Resources Account, the Emerging Renewable Resources Account (Buy-Down Program), and the Customer-Side Renewable Resources Purchases Account.

The “Buy-Down Program” provides cash rebates on eligible renewable energy electric-generating systems, such as small wind turbines, fuel cells, solar photovoltaics and other solar power generating equipment. The Commission provides a rebate of up to $3,000 per kilowatt, or 50 percent off the system purchase price (whichever is less) of certified equipment.

COMMENTS

1. **Sponsor and purpose.** This bill is sponsored by the author and is intended to provide an incentive to purchase complete solar energy systems in light of the state’s current energy crisis.

2. **Specific rules apply to construction contracts.** Specific rules apply under the Sales and Use Tax Law to the furnishing and installing of tangible personal property by construction contractors since, upon installation, the property may become part of real property. Generally, contracts for improvements to real property, such as the installation of a solar energy system, constitute construction contracts and the contractor is responsible for payment of the tax on his or her purchase of materials,

such as electrical wiring, piping, etc. furnished and installed in the performance of a construction contract. The contractor is generally regarded as a retailer of fixtures, such as the solar panels, and the sales tax applies to the sale of the panels by the contractor to the customer. The tax applies to the sales price, which is the price stated in the contract. If the contract does not state the sales price, then the sales price is the cost price to the contractor, assuming the contractor purchases the fixtures in completed condition. Typically, a contractor who furnishes and installs a solar energy system bills the customer on a lump sum basis, without any separate charge for the materials, fixtures or sales tax. In such cases, the contractor would receive the benefit of the proposed exemption on his or her purchase of the components of the system. It is not certain that a contractor billing in lump would pass on this tax savings to the customer since the tax is not reflected in the contract.

3. **Proposed exemption would appear to apply to solar panels for swimming pools and hot tubs.** In addition to the proposed exemption appearing to apply to residential and commercial heating systems, the language of the bill does not require a qualifying purpose for the installation of a solar thermal system in order for the exemption to apply. Therefore the exemption would appear to apply to solar panels installed for purposes of heating swimming pools and hot tubs.

4. **Partial exemptions are more difficult to administer.** The bill would exempt only the state portion of the sales and use tax. Retailers would be burdened with additional record keeping and segregating for purposes of calculating the correct amount of tax on sales of this equipment which would be required for purposes of collecting and reporting the correct amount of tax to the Board. This additional level of complexity would cause a corresponding increase in the number of errors made on returns filed with the Board.

5. **Technical correction.** On page 2, line 16, the word “credit” should be changed to “section.”

6. **Related legislation.** Several sales and use tax measures have been introduced this session to respond to California's energy crisis. Those still pending in the Legislature include the following:

   AB 1319 (Cox) - This measure is similar to AB 62XX - a state tax exemption for any solar energy system designed to provide thermal energy for the purpose of heating water or providing electrical power, as specified.

   AB 695 (Pescetti) - This measure would exempt residential and commercial appliances that are energy efficient, as defined.

   The Members of the Board voted to support both measures.

COST ESTIMATE

Some costs would be incurred in notifying affected retailers and contractors, verifying claimed exemptions, and amending the Board’s regulation. These costs are expected to be absorbable.

This staff analysis is provided to address various administrative, cost, revenue and policy issues; it is not to be construed to reflect or suggest the Board’s formal position.

REVENUE ESTIMATE

Background, Methodology, and Assumptions

Solar Energy Systems

According to the Energy Information Administration (EIA) Annual Solar Thermal Collector Manufacturer's Survey, 23,839 complete solar thermal systems, valued at $17.9 million were shipped in 1999. EIA does not have a breakdown of how many of these systems are sold in California. However, EIA's ranking of domestic solar collectors by top five destinations depicted California as the second largest receiver of solar collectors (29%). Since a collector is a key component of a complete system, it is assumed that the same ratio would apply to solar thermal systems. Total annual solar thermal collector system expenditures in California are estimated to be $5.2 million (29% X $17.9 million = $5.2 million).

Photovoltaic Systems

A complete PV system is defined as a power supply unit that satisfies all the power requirements of an application. Such a system is generally made up of one or more modules, a power-conditioning unit to process the electricity into the form needed by the application, wires and other electrical connectors.

According to the EIA Annual Photovoltaic Module/Cell Manufacturer's Survey, 6,317 complete photovoltaic module systems, valued at $23.3 million, were shipped in 1999. Total shipments include domestic and export shipments. Discussions with the EIA revealed that production of the complete systems in 2000 increased by 30%. The value of the systems shipped in 2000 is estimated to be $30.3 million ((30% X $23.3 million) + $23.3 million = $30.3 million).

Based on EIA's statistic that only 30% of photovoltaic cells and modules constitute domestic shipments, it is estimated that the same ratio would apply to complete photovoltaic systems. The estimated value of domestic shipments of complete photovoltaic systems is $9.1 million (30% X $30.3 million = $9.1 million).

No figures were available showing the expenditures in California. If we assume that California accounts for 12% of these sales (California represents 12% of U.S. population), then annual complete photovoltaic systems expenditures in California are estimated to be $1.1 million (12% X $9.1 million = $1.1 million).

Total Expenditures for calendar year 2001 are as follows:

Type	Expenditures (in millions)
Solar Thermal Systems	$ 5.2
Photovoltaic Systems	1.1
Total	$ 6.3

This staff analysis is provided to address various administrative, cost, revenue and policy issues; it is not to be construed to reflect or suggest the Board's formal position.

Revenue Summary

The revenue impact from exempting solar thermal systems and photovoltaic systems from the sales and use tax would be an annual state revenue loss of $315,000, based on a 5% state sates and use tax rate. The state sales and use tax rate is 4.75% for calendar year 2001 and is scheduled to be 5% in calendar year 2002.

*.

Analysis prepared by:	Sheila T. Sarem	445-6579	06/08/01
Revenue estimate by:	Dave Hayes	445-0840	
Contact:	Margaret S. Shedd	322-2376	

sf

This staff analysis is provided to address various administrative, cost, revenue and policy issues; it is not to be construed to reflect or suggest the Board's formal position.